

## **REMARKS**

### **Formal Matters**

Claims 15-38 are pending after entry of the amendments set forth herein.

Claims 15-37 were examined. Claims 15-37 were rejected.

Applicants respectfully request reconsideration of the application in view of the amendments and remarks made herein.

No new matter has been added.

### **The Telephone Interview**

Applicants wish to extend their appreciation to the Examiner for the courtesy provided to Applicants' representative during the telephone interview of January 25, 2008. During the Interview, Applicants' representative distinguished the Eisen (ScanAlyze) reference, noting that this reference assumes a constant background for each channel and therefore cannot flag a background feature. The Examiner indicated that this point of distinction would be considered in view of the amendment of claims 15 and 27 as above. Additionally, new dependent claim 38 has been submitted in this regard.

This account is believed to be a complete and accurate summary of the interview as required by 37 C.F.R. § 1.133. If the Examiner believes that this summary is inaccurate or incomplete, Applicants respectfully request that the Examiner point out any deficiencies in her next communication so that Applicants can amend or supplement the interview summary.

### **The Office Action**

#### **Claims Rejected Under 35 U.S.C. Section 103(a) (Eisen (ScanAlyze) in view of Engelmann et al.)**

In the Official Action of December 26, 2008, claims 15, 18, 24-33 and 37 were rejected under 35 U.S.C. Section 103(a) as being unpatentable over Eisen (the "ScanAlyze" program described by the "ScanAlyze User Manual") and Englemann et al, U.S. Patent No. 5,987,345. Regarding claims 15 and 27, the Examiner asserted that ScanAlyze involves displaying an image of a molecular array, whereby

the user can “flag” spots according to various parameters, the spots being indicated by a bold outline over their corresponding location on the array image.

The Examiner asserted that the positions over which the objects of ScanAlyze are superimposed include feature positions and background positions on the image of the molecular array. Applicants respectfully traverse. It is respectfully submitted that the only positions for overlay described by Eisen (ScanAlyze) are the locations of the outlines of the features, which were noted by the Examiner above. It is respectfully submitted that Eisen neither discloses nor suggest superimposing an object within the body of a feature or superimposing an object on background surrounding a feature.

The Examiner further asserted that it would have been obvious, in view of Engelmann et al., to modify the ScanAlyze user interface so that a plurality of sets of graphical object can be simultaneously displayed, with a first set of object being graphically distinct from a second set. Applicants respectfully traverse, since ScanAlyze makes not provision for individually identifying different characteristics of the data on the display.

Further, it is respectfully submitted that Engelmann et al. is not analogous art in that it does not pertain to feature extraction of microarrays or manipulating and displaying data results therefrom. Since Eisen (ScanAlyze) assumes the background of the microarray to be constant in each channel (see page 24), it would not have been meaningful to provide flags for the background, or for a background area surrounding a feature. Claims 15 and 27 have been amended above to recite that the first data characteristic can be a characteristic of a feature on the image or a background on the image and that the second first data characteristic can be a characteristic of a feature on the image or a background on the image. Support for these amendments can be found, for example at pages 19-20 of the specification and throughout the specification.

In view of the above amendments and remarks, the Examiner is respectfully requested to reconsider and withdraw the rejection of claims 15, 18, 24-33 and 37 under 35 U.S.C. Section 103(a) as being unpatentable over Eisen (the “ScanAlyze” program described by the “ScanAlyze User Manual”) and Englemann et al, U.S. Patent No. 5,987,345, as being inappropriate.

**Claims Rejected Under 35 U.S.C. Section 103(a) (Eisen (ScanAlyze) in view of Engelmann et al., Bassett, Jr. et al. and Malamud et al.)**

Claims 16-17 and 34-35 were rejected under 35 U.S.C. Section 103(a) as being unpatentable over Eisen (the “ScanAlyze” program described by the “ScanAlyze User Manual”) and Englemann et al,

U.S. Patent No. 5,987,345, as applied to claims above, and further in view of Bassett, Jr. et al., U.S. Patent No. 6,453,251 and Malamud et al., U.S. Patent No. 6,437,800.

It is respectfully submitted that neither Bassett, Jr. et al. nor Malamud et al., whether taken alone or in any proper combination, makes up for the deficiencies of Eisen (ScanAlyze) and Engelmann et al. in meeting all of the recitations of independent claims 15 and 27. Since Eisen (ScanAlyze) assumes a uniform background, one would not have been motivated to modify Eisen (ScanAlyze) to flag the background.

In view of the above amendments and remarks, the Examiner is respectfully requested to reconsider and withdraw the rejection of claims 15, 18, 24-33 and 37 under 35 U.S.C. Section 103(a) as being unpatentable over Eisen (the "ScanAlyze" program described by the "ScanAlyze User Manual") and Englemann et al, U.S. Patent No. 5,987,345, as applied to claims above, and further in view of Bassett, Jr. et al., U.S. Patent No. 6,453,251 and Malamud et al., U.S. Patent No. 6,437,800, as being inappropriate.

**Claims Rejected Under 35 U.S.C. Section 103(a) (Eisen (ScanAlyze) in view of Engelmann et al., and Buhler et al.)**

Claims 19-23 and 36 were rejected under 35 U.S.C. Section 103(a) as being unpatentable over Eisen (the "ScanAlyze" program described by the "ScanAlyze User Manual") and Englemann et al, U.S. Patent No. 5,987,345, as applied to claims above, and further in view of Buhler et al. ("Dapple: Improved Techniques for Finding Spots on DNA Microarrays").

The Examiner again asserted that ScanAlyze displays distinct graphical objects superimposed over features on a microarray, and further that the characteristics over which the distinct graphical objects may be superimposed are "related to the validity of the background". Applicants strongly traverse. As noted above, Eisen (Scanalyze) assumes a constant, uniform background and therefore does not consider the validity of the background for flagging purposes.

It is respectfully submitted that Buhler et al. (Dapple) does not make up for the deficiencies of Eisen (ScanAlyze) and Engelmann et al. in meeting all of the recitations of independent claims 15 and 27. Since Eisen (ScanAlyze) assumes a uniform background, one would not have been motivated to modify Eisen (ScanAlyze) to flag the background.

In view of the above amendments and remarks, the Examiner is respectfully requested to reconsider and withdraw the rejection of claims 19-23 and 36 under 35 U.S.C. Section 103(a) as being

unpatentable over Eisen (the "ScanAlyze" program described by the "ScanAlyze User Manual") and Englemann et al, U.S. Patent No. 5,987,345, as applied to claims above, and further in view of Buhler et al. ("Dapple: Improved Techniques for Finding Spots on DNA Microarrays, as being inappropriate.

### **New Claim**

New claim 38 has been submitted above, which is a dependent claim that depends from claim 15. Support for this claim can be found, for example, at page 20 of the specification and throughout the specification. It is respectfully submitted that claim 38 is allowable over the art of record and allowance of this claim is respectfully requested in the next Official Action.


### **Conclusion**

Applicants submit that all of the claims are in condition for allowance, which action is requested. If the Examiner finds that a telephone conference would expedite the prosecution of this application, please telephone the undersigned at the number provided.

The Commissioner is hereby authorized to charge any underpayment of fees associated with this communication, including any necessary fees for extensions of time, or credit any overpayment to Deposit Account No. 50-1078, order number 10010327-1.

Respectfully submitted,

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